

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1-9 are now present in this application. Claim 1 is independent.

Amendments have been made to the drawings. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

Priority Under 35 U.S.C. § 119

Applicant thanks the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. §119, and receipt of the certified priority document.

Information Disclosure Citation

Applicant thanks the Examiner for considering the reference supplied with the Information Disclosure Statement filed September 1, 2004, and for providing Applicant with an initialed copy of the PTO-1449 form filed therewith.

Specification Guidance

The Examiner has presented suggested guidelines that may be followed with respect to the layout of Applicant's specification. Applicant thanks the examiner for these suggested guidelines.

However, because this Application has already been (1) examined on its merits, (2) published by the World Intellectual Property Association in its originally filed format as a PCT Application, and (3) published under 35 U.S.C. §122(b) as Patent Application Publication 2005/0132109, Applicant respectfully submits that it is not necessary or desirable to amend the Specification in accordance with the suggested, and not mandatory, guidelines of 37 CFR §1.77.

Reconsideration and withdrawal of this objection are respectfully requested.

Drawing Objections

The Office Action objects to the drawings because they do not include certain specifically identified reference numerals. In order to overcome this objection, Applicant has amended the drawings to show these features and enclose replacement sheets for the amended drawing sheets.

Accordingly, reconsideration and withdrawal of this objection to the drawings are respectfully requested.

Rejection Under 35 U.S.C. § 112, 1st Paragraph

Claims 3 and 5 stand rejected under 35 U.S.C. § 112, 1st Paragraph. This rejection is respectfully traversed.

The Examiner states that the specification does not make reference to the claimed feature of “a predeterminable fourth threshold value,” or indicate what this value might be.

Applicant respectfully submits that the language in issue is contained in original claims 3 and 5 and, as such, is part of Applicant’s original disclosure. It is well settled that the claims as filed are part of the specification, and may provide or contribute to compliance with Section 112. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 938, 15 USPQ2d 1321, 1326 (Fed. Cir. 1990) (the original claims are part of the patent specification); In re Benno, 768 F.2d 1340, 1346, 226 USPQ 683, 686-87 (Fed. Cir. 1985); In re Frey, 166 F.2d 572, 575, 77 USPQ 116, 119 (CCPA 1948), cited in Hyatt v. Boone, 47 USPQ2d 1128, 1130 (Fed. Cir. 1998).

Moreover, Applicant respectfully submits that the meaning of the language in issue is clear from the context in which it is presented in both claims 3 and 5.

Accordingly, Applicant respectfully submits that claims 3 and 5 fully comply with the written description provisions of 35 U.S.C. §112, first paragraph. Reconsideration and withdrawal of the rejections of claims 3 and 5 are respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1, 2, 6,7, 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,831,546 to Costa et al ("Costa"). This rejection is respectfully traversed.

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the

claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not

make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Moreover, it is well settled that the Office must provide objective evidence of the basis used in a prior art rejection. A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Furthermore, during patent examination, the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicant is entitled to the patent. Only when a *prima facie* case is made, the burden shifts to the applicant to come forward to rebut such a case.

The Office Action admits that Costa differs from the claimed invention by stating that one of the main differences between Costa and Applicant's invention is that Applicant's invention addresses the participant that fails to detect a current (or voltage across a known resistance), whereas Costa addresses the participant that succeeds in detecting a voltage (or current through a known resistance). Another admitted difference between Applicant's claimed invention and Costa is that Applicant's invention begins by addressing the participant furthest from the control circuit, while Costa begins by addressing the participant closest to the control circuit (CPU).

The Office Action speculates that it would be obvious to modify the method of Costa to operate as described by Applicant because the Applicant's method appears to be an obvious design choice that fails to patentably define over the prior art. Reasons given for this speculative conclusion are that Applicant offers no specific purpose or problem solved by this approach versus

the approach of Costa and both Costa and Applicant sequentially address participants of a bus.

Applicant respectfully disagrees with this speculative conclusion for a number of reasons.

Firstly, the Office Action presents absolutely no objective factual evidence of proper motivation by one of ordinary skill in the art to modify Costa to address the participant furthest from the control circuit, as recited, nor to address participants that fails to detect a current (or voltage across a known resistance). The proposed modification of Costa involves a fundamental redesign of the operational aspects of Costa, yet the Office Action cannot even provide any objective factual evidence in Costa or any other reference (no other references being applied in this rejection) to properly motivate one of ordinary skill in the art to come up with such a fundamental redesign of the operational aspects of Costa to achieve the claimed invention.

The need to provide objective factual evidence of proper motivation to modify Costa to achieve the claimed invention is an essential element of making out a *prima facie* case of obviousness of a claimed invention. See, in this regard, "In re Lee," cited above, for example. Yet, this Office Action completely fails to provide such evidence.

Secondly, The Examiner improperly tries to shift the burden of the office to make out a *prima facie* showing of obviousness of the claimed invention to

Applicant by indicating that an invention is presumed to be obvious unless the Applicant offers a specific purpose or problem solved by Applicant's claimed invention versus the method of a particular reference. This is totally contrary to the established case law cited above and denies Applicant fundamental substantive and procedural due process under the Administrative Procedures Act. See in this regard, In re Zurko, 119 S.Ct. 1816, 50 USPQ2d 1930 (1999), and In re Gartside, 53 USPQ2d 1769 (Fed. Cir. 2000).

Thirdly, the Office Action improperly relies on the *per se* rule that using arbitrary design choices are *per se* obvious, and specifically that fundamentally redesigning the operational aspects of Costa is *per se* obvious.

The Office Action's position in this regard is completely at odds with established precedential case law of the Court of Appeals for the Federal Circuit. As stated by the Federal Circuit in In re Ochiai, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995), "reliance on *per se* rules of obviousness is legally incorrect and must cease."

Fourthly, Applicant respectfully submits that Costa actually has problems that are overcome by Applicant's claimed invention. In this regard, Applicant respectfully submits that the problem with the known addressing procedure of Costa is that the more participants are addressed the higher is the voltage value identifying a participant to be addressed (see line 62 of column 5 to line 6 of column 6 of Costa).

Accordingly, unique addresses will be assigned to each position, i.e. participant, based on the respective different voltage values. The voltage values depend on the current and the values of the individual resistors R1, R2, and R21. It is important for the process of Costa that the individual resistors have well defined values. Due to tolerances or the like the values cannot be exactly as desired so that the different voltage values can vary from the desired values. This is true in particular in bus systems with a lot of participants because the individual voltage values depend on the number of resistors through which the current flows.

In other words, the current or voltage sensors of the individual participants in the system of Costa have to be rather sensitive in order to be able to differentiate between the different voltage values. This appears to be a major problem with the system of Costa and a problem that Applicant's invention, wherein the process of addressing the participants starts with the participant farthest away from the central unit, does not have.

In other words, switching off the respective addresses participants addressed during the respective last cycle, means that no identification current is flowing through these respective participants any longer. Accordingly, the resistors which are also used for the current sensors of the participants according to the invention (see resistors 32 in the figures) are used individually and for detecting the identification current but are not used in that they are connected

in series for detecting the voltage drop across the series of resistors as is the case in Costa.

Accordingly, the current detection according to the invention appears to be more reliable than the voltage detection in the known bus system of Costa. For example, according to Applicant's invention there is only one threshold value for all the participants to identify whether or not the respective participant is the participant farthest away from the central control unit 18. In contrast thereto, according to Costa, different voltage values have to be detected in order to decide about the position and, accordingly, address of a participant.

Further, with regard to original claim 2 the Examiner argues that also the subject matter thereof is obvious. Applicant respectfully disagrees. For example, the scenario described in claim 2 should not be compared with a situation where an "error current" occurs. Applicant respectfully submits that the quiescent current of claim 2 has nothing to do with an "error current." While the quiescent current is a current which is desired to flow, an error current" always is a current which should not exist.

In other words, the current detection according to the invention is more reliable than the voltage detection in the known bus system of Costa. In particular, according to the invention there is only one threshold value for all the participants to identify whether or not the respective participant is the

participant farthest away from the central control unit 18. In contrast thereto, according to Costa, different voltage values have to be detected in order to decide about the position and, accordingly, address of a participant.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the claimed invention.

Reconsideration and withdrawal of this rejection of claims 1, 2, 6, 7, 8 and 9 under 35 U.S.C. §103(a) as unpatentable over DeCosta are respectfully requested.

Allowable Subject Matter

The Examiner states that claim 4 would be allowable if rewritten in independent form.

Applicant thanks the Examiner for the early indication of allowable subject matter in this application. However, claim 4 has not been re-written in independent form because of Applicant's belief that claim 1, from which claim 4 depends, is allowable, at least for reasons presented above.

Additional Cited References

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

Conclusion

All of the stated grounds of rejection and objection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

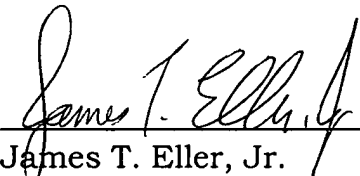
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Art Unit 2111


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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Replacement Drawing Sheets

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Amendments to the Drawings

The attached sheet of drawings includes changes to Figs. 1-17. These seventeen sheets, which include Figs. 1-17, replace the original sheets including those same Figures.

Reference numerals 10, 14 and 36 have been added to the drawing figures.

Attachment: Replacement Sheets